

# Response to Comments Effluent Treatment Facility Delisting Modification

June 7 – July 7, 2021

For the **Nuclear Waste Program**Washington State Department of Ecology
Richland, Washington
October 2021, Publication 21-05-026



### **Publication Information**

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<sup>1</sup> www.ecology.wa.gov/contact

# **Department of Ecology's Regional Offices**

### **Map of Counties Served**



Southwest Region 360-407-6300

Northwest Region 206-594-0000

Central Region 509-575-2490 Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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### Introduction

The Washington State Department of Ecology's Nuclear Waste Program (Ecology) is approving targeted technical amendments to the existing exclusion for the U.S. Department of Energy (Energy) for the Hanford Site in Richland, Washington. This will be a deregulatory action that will allow the petitioning facility to manage additional liquid effluents from startup of the Direct-Feed Low-Activity Waste treatment system (DFLAW) as non-hazardous.

Washington Administrative Code [WAC] 173-303-910 requires Ecology to provide notice and an opportunity for comment before granting or denying a final exclusion. Ecology will not make a final decision to grant an exclusion until it has addressed all timely public comments on the proposal.

The Response to Comments is the last step before granting the final exclusion, and its purpose is to:

- Describe and document public involvement actions.
- List and respond to all significant comments received during the public comment period and any related public hearings.

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our webpage, <u>Hanford Cleanup</u><sup>2</sup>.

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<sup>&</sup>lt;sup>2</sup> https://www.ecology.wa.gov/Hanford

### **Reasons for Issuing the Delisting Modification**

### Hanford's 200 Area Effluent Treatment Facility

The 200 Area Effluent Treatment Facility (ETF) is a radioactive aqueous wastewater treatment system located in the 200 East Area of the Hanford Site that provides treatment for a variety of aqueous mixed waste. This aqueous waste includes processed condensate from the 242-A Evaporator, Hanford landfill leachates, and other aqueous waste generated from onsite remediation and waste management activities, potentially carrying a range of listed and characteristic dangerous waste numbers. The 200 Area ETF consists of a primary and a secondary treatment train. The primary train includes treatment processes to treat both organic and inorganic waste constituents, including ultraviolet oxidation (UV/OX), reverse osmosis, ion exchange, pH adjustment and filtration. The secondary treatment train manages backwash from the primary treatment train filters, ion exchange regeneration, and the stream from the reverse osmosis system that is retained by the reverse osmosis membrane, also known as retentate. Construction of the 200 Area ETF began in 1992 with waste management operations beginning in November 1995.

Treated effluent from the 200 Area ETF is discharged to the State Approved Land Disposal Site, or SALDS, located north of the 200 West Area of the Hanford Site. This disposal unit allows tritium remaining in the treated effluent to naturally decay in the subsurface – it is not authorized to accept dangerous waste. To this end, the U.S. Environmental Protection Agency (EPA) issued an exclusion from the list of hazardous wastes to Energy in 1995. See 60 Federal Register (FR) 6054, Feb. 1, 1995. This exclusion was amended by EPA in 2005. See 70 FR 44496, Aug. 3, 2005.

### Hanford's Waste Treatment and Immobilization Plant

The Waste Treatment and Immobilization Plant (WTP), is intended to process and stabilize much of the 56 million gallons of radioactive and chemical waste currently stored at the Hanford Site. As originally envisioned, the WTP would treat high-level and low-activity radioactive waste simultaneously. To begin treating waste as soon as practicable, Energy developed an approach to treat low-activity waste prior to the start-up of the WTP pretreatment and the high-level waste facilities. This approach is called Direct-Feed Low-Activity waste, or DFLAW, and is focused on sending low-activity waste from the tank farms directly to the WTP Low-Activity Waste (LAW) Facility. A new Effluent Management Facility (EMF) has been constructed at the WTP to manage effluents generated from the WTP LAW Facility during DFLAW. The EMF is needed to evaporate the liquid secondary waste generated by the off-gas treatment system associated with the two WTP LAW Facility vitrification melters. Evaporator process condensate from the EMF, combined with WTP LAW Facility caustic scrubber effluents, will receive treatment at the 200 Area ETF, with the resulting treated effluent disposed of at the SALDS. The waste stream transferred from WTP to the 200 Area ETF is referred to as the WTP DFLAW effluent waste stream.

### Changes to 200 Area Effluent Treatment Facility Capability

Through the design and permitting of the WTP complex, Energy identified several additional constituents it expected to be present in WTP DFLAW effluent waste stream which are not typically found in wastes managed by the 200 Area ETF, or are present at levels above the current capabilities of the 200 Area ETF. Most of these additional constituents are within the existing treatment capabilities of the 200 Area ETF, and do not require special consideration.

One constituent, acetonitrile, which is formed in the WTP LAW Facility vitrification melters, is predicted to be present at levels in excess of the current capability of the 200 Area ETF, as reflected in the current organic treatability envelope documented in Table C–2 of the delisting petition dated Nov. 29, 2001. Within the 200 Area ETF, the UV/OX system treats organic compounds, including but not limited to acetonitrile. However, acetonitrile is not easily degraded through UV/OX. Table C-2 in the Nov. 29, 2001, petition shows an electrical energy per order (EE/O) of magnitude destruction of 50. EE/O reflects the relative difficulty for destruction of the organic constituent in the UV/OX unit. Constituents in Table C-2 with an EE/O of 40 or higher are considered hard to treat organics.

After examining various options for addressing this issue, Energy determined that the addition of supplemental organic treatment in the form of a steam stripper to the 200-ETF to separate acetonitrile from treated effluents would be the preferred approach to ensuring additional constituents associated with the WTP DFLAW effluent waste stream can be effectively managed at the 200 Area ETF. To accommodate the addition of the proposed steam stripper unit to the 200 Area ETF, two technical amendments are necessary to the current delisting. First, the list of unit operations in Condition (1)(d)(iv) of the current delisting must be amended to include steam stripping. Second, a new condition is necessary to establish a mechanism whereby Energy can operate the 200 Area ETF outside of the existing treatability envelope to gather demonstration test data to increase the treatability envelope concentration for acetonitrile to accommodate the predicted level in the WTP DFLAW effluent waste stream.

### **Delisting Regulations**

Ecology regulates the management of dangerous waste in Washington State in accordance with the Washington State Hazardous Waste Management Act, Chapter 70.105 Revised Code of Washington (RCW) and the Dangerous Waste Regulations, Chapter 173-303 WAC.

EPA also regulates facilities that manage hazardous waste in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA) and the regulations in Title 40 of the Code of Federal Regulations (CFR). EPA has authorized Ecology to implement these federal regulations in Washington.

Both the federal hazardous waste regulations and state dangerous waste regulations include provisions that allow a facility to petition for exclusion ("delisting") from the list of federal hazardous wastes. The state provisions for delisting petitions are found in WAC 173-303-910(1) and (3). The federal provisions for delisting petitions are found in 40 CFR 260.20 and 260.22.

While Ecology has received final authorization to implement most of its dangerous waste program regulations in lieu of the federal program, including the listing and identification of

U019 and U220 wastes, it has not been authorized to implement its delisting regulations program in lieu of the federal program. As a result, Energy must seek approval of their delisting petition from both Washington State and EPA.

### Decision

Based on the review of the petition submitted by Energy, there does not appear to be any significant legal, environmental, scientific, or economic issues. The facility has demonstrated compliance with applicable regulatory criteria for this action.

Ecology is making a state delisting modification decision under its authority coordinated with EPA's decision under federal authority. EPA's approval and final delisting rule was published September 20, 2021 (See 86 Federal Register 50647). Ecology is approving the technical amendments to the existing exclusion under its own respective authority. The conditions of the existing exclusion not modified by this action remain unchanged.

### **Public Involvement Actions**

Ecology invited public comment on the Effluent Treatment Facility Delisting Modification during a 30-day public comment period held June 7 through July 7, 2021. One comment was received during the comment period.

The following actions were taken to notify the public:

- Emailed a notice announcing the start of the comment period to the Hanford-Info email list, which has 1,282 recipients.
- Posted the comment period notice on the Washington Department of Ecology Hanford's Facebook and Twitter pages.

The following public notices for this comment period are in Appendix A of this document:

- Fact Sheet
- Notices sent to the Hanford-Info email list
- Notices posted on the Washington Department of Ecology Hanford's Facebook and Twitter pages

## **List of Commenters**

The table below lists the names of organizations or individuals who submitted a comment on the [unit name] Permit modification. The comments and responses are in <a href="Attachment 1">Attachment 1</a>.

Commenter	Organization
Anonymous	Citizen

# **Attachment 1: Comments and Responses**

### **Description of comments:**

Ecology accepted comments from June 7 through July 7, 2021. This section provides a summary of comments that we received during the public comment period and our responses, as required by RCW 34.05.325(6)(a)(iii). Comments are grouped by individual and each comment is addressed separately.

### I-1: ANONYMOUS CITIZEN

### Comment I-1-1

In reviewing the delisting materials provided for review with letter 21-ECD-00789, RPP-RPT-63053 states in the executive summary:

"The Waste Treatment and Immobilization Plant Direct Feed Low Activity Waste program waste stream is projected to contain a range of organic and inorganic constituents within the 200 Area ETF treatability envelope except for the organic compound acetonitrile. Acetonitrile is projected to be present in Waste Treatment and Immobilization Plant waste stream at concentrations up to 59.9 milligrams per liter (mg/L) which exceeds the approved acetonitrile treatability envelope of 23.1 mg/l. Acetonitrile is projected to be formed as a product of incomplete combustion within the Waste Treatment and Immobilization Plant and not present in the waste feed from the tank farms. The Waste Treatment and Immobilization Plant waste stream containing acetonitrile will be primarily generated from the submerged bed scrubber and wet electrostatic precipitator components".

### Response to I-1-1

Ecology is noting that the EPA Final Rule is found in the Federal Register Volume 86, NO 173, Friday, September 10, 2021.

As documented in the Department of Energy's (Energy) request for a modification of the 200 Area ETF delisting, Energy identified that acetonitrile exceeded the existing treatability envelope for this constituent. Based on our analysis of information provided by Energy for the current proposed delisting modification, and content of the 2005 modifications to the delisting (in 2005, expectations were that other wastes would be generated in the future, but were not sufficiently characterized in order to be evaluated at the time), Ecology and EPA have determined that with the current proposed modifications, the 200 Area ETF is capable of accepting expected liquid effluents from the Waste Treatment Plant (WTP). Ecology and EPA have also determine that there is little if any regulatory, environmental, or project risk in regards to WTP liquid effluents.

### Comment I-1-2

Page 16 of RPP-RPT-62739 states that "The spreadsheet "Estimation of Secondary Waste Concentrate in Appendix C of RPP-RPT-60974 projected that once the WTP EMF hot operations wastewater was processed through ETF, the secondary waste (brine or powder) will exceed the LDR treatment standards for lead, mercury and selenium. " ... Therefore, all specific waste acceptance criteria required by IDF for ETF's STT secondary solid waste remains a data gap." Also "Various projects are underway to mitigate ETF's inability to treat the WTP EMF hot operations wastewater including: restoration of the peroxide destruction modules (P DMs); replacement in kind of a newer UV/Ox unit; addition of a steam stripper and carbonate/CO2 conversion/ removal system, etc." Page 35 of RPP-RPT-62739 states that: "A defined secondary waste disposition path is needed for the solids/brine produced by treatment of WTP EMF hot

operations effluent." ... Additional solidification treatment can be conducted off-site and the resulting treated waste form returned to the Hanford Site for disposal.

### Response to I-1-2

Secondary wastes are not part of the request or proposed modifications to the 200 Area ETF delisting. Generation of and management of secondary wastes will always be part of the ETF and WTP final permit conditions.

### Comment I-1-3

Page 36 ofRPP-RPT-62739 states "Additionally, RPP-RPT-60974 lists constituents in the projected WTP EMF hot operations wastewater profile that are not included in the delisting treatability envelope, including 2-bexanone, 2-butoxyethanol, acetate, glycolate, oxalate, boron, and manganese. These additional constituents (and their associated limits) will need to be added to the delisting approval treatability envelope. A project is underway to complete this action."

It appears that the WTP LAW melter/incinerators are ineffective at treating tank waste, and WTP is actually "projected" to produce new and increased quantities of listed waste, beginning with acetonitrile.

### Response to I-1-3

This comment appears outside the scope of the proposed modifications to the 200 Area ETF delisting.

Energy submitted on June 29, 2021, a letter requesting two actions: Approval of an expanded list of alternate reuse practices under Condition 7 of the current delisting and approval of various updates to Tables C-1 and C-2 pursuant to Condition (1)(b) of the current delisting. Ecology and EPA replied in a letter dated August 30, 2021, approving the two actions. Approval was for particular changes to supporting documentation related to the current exclusion from the definition of hazardous waste (delisting) for certain treated effluent produced by the 200 Area ETF. Ecology and EPA have determined (based on the review of the information provided by Energy regarding new constituents associated with WTP) that the methodology used by Energy in developing this information is sound and defensible. Ecology also notes that the 2005 revision to the ETF delisting included rigorous waste characterization and waste treatment plan requirements prior to acceptance of any waste for treatment at the ETF.

### Comment I-1-4

Also - EPA has noted that acetonitrile is difficult to destroy. Will the yet undiscovered other constituents be similarly difficult to destroy, potentially leading to more "off-site" promises and off-site risks?

In the present petition the permit and delisting modifications are continuing without a verified flow sheet.

### Response to I-1-4

Refer to response I-1-3. There is no substantial risk of unidentified constituents appearing in WTP liquid effluents that would preclude acceptance of such wastes for treatment at the ETF. Waste unacceptable for treatment at the ETF are identified prior to waste receipt.

### Comment I-1-5

Ecology has accepted DOE's approach of "finish DFLA Wat all/any costs" and "trust us," "we will spend any amount to fix our errors and omissions." However, I would appreciate if you will insist that DOE's waste be processed on site, far above the water table, rather than spreading 585R7, the waste and risk inside the Richland City Limits. The recent GAO report, GAO-21 "Department of Energy Environmental Liabilities Continue to Grow, " notes that "EM' s environmental liability has grown at a rate that has outpaced its spending on cleanup activities." Ecology and EPA should not approve a de listing petition that contains a pathway for spreading the risks to the vicinity of Richland residents and businesses. Any tank-waste-related feeds to LERF/ETF and any brines produced as a result of the changing "projections" of WTP waste compositions as described in the current delisting petition, should be prohibited from off-site treatment. The cradle to grave liability for this waste rests with DOE, and DOE should not share it with a facility that has a poor track record and a poor environmental location.

### Response to I-1-5

The disposition and management of secondary wastes is not in the scope of the ETF delisting. Regarding the risks associated with treatment of ETF secondary wastes at off-site facilities, Ecology through WAC 173-303 and its permits, ensures that all wastes treated, stored, and disposed at approved facilities are in compliance and in a manner fully protective of human health and the environment.

# **Appendix A. Copies of All Public Notices**

Public notices for this comment period:

- Fact sheet
- Notices sent to the Hanford-Info email list
- Notices posted on Washington Department of Ecology Hanford's Facebook and Twitter pages



# Fact Sheet for Hanford 200 Area Effluent Treatment Facility Delisting Modification

June 2021

### **Purpose of this Fact Sheet**

This fact sheet explains and documents the evaluation the Department of Ecology (Ecology) performed in making a tentative decision to grant targeted technical amendments to the existing exclusion for the United States Department of Energy (Energy) for the Hanford Site in Richland, Washington. This will be a deregulatory action that will allow the petitioning facility to manage additional liquid effluents from startup of the Direct Feed Low Activity Waste treatment system (DFLAW) as non-hazardous.

Ecology is providing written notice of its tentative decision to grant these changes submitted by Energy for public review and comment at least thirty (30) days before making the final decision on the proposed delisting modification. Copies of the official submittal for the proposed modifications, changes and supporting information and this fact sheet are available for public review and comment from June 7 through July 7, 2021. Submit comments to <a href="Hanford 200 Area Effluent Treatment Facility Delisting Modification">Hanford 200 Area Effluent Treatment Facility Delisting Modification</a> by July 7, 2021.

Upon the written request of any interested person, Ecology may, at its discretion, hold a conference to consider oral comments on the action proposed in the delisting modification. A person requesting a conference must state the issues to be raised and explain why written comments would not suffice to communicate the person's views.

After evaluating all public comments, Ecology will make a final decision to grant or deny the delisting modification. The approval or denial of the proposed modifications will be by letter from Ecology. We will summarize substantive comments and provide responses to them and make it available with the final decision to approve or deny the proposed delisting modifications. The full document will become part of the administrative record contained in the two facilities' regulatory files.

### Summary

The Department of Ecology's Nuclear Waste Program is proposing technical amendments to an existing exclusion from the list of federal hazardous waste (delisting) issued to the United States Department of Energy (Energy) under the Resource Conservation and Recovery Act. Energy formally submitted a petition on March 31, 2021, in accordance with Washington Administrative Code (WAC) 173-303-910(3). The petition requests modifications that address changes to the 200-Area Effluent Treatment System associated with the delisting necessary to accept liquid effluents expected to be generated from vitrification of certain low-activity mixed wastes at the Hanford Federal Facility, or Hanford Site, in Richland, Washington. These amendments relate to the planned startup of the Hanford Waste Treatment and Immobilization Plant.

These will be modifications to the existing Hanford 200 Area Effluent Treatment Facility (ETF) delisting, under which ETF treated effluent has been managed since initial promulgation of this



exclusion by the U.S. Environmental Protection Agency (EPA) in 1995 (See 60 Federal Register [FR] 31107, June 13, 1995) and subsequent approval by Ecology. Energy also submitted a delisting modification to the existing Hanford 200 Area Effluent on May 27, 2004, for an expanded constituents list and an increase in the annual ETF treated effluent volume limit. This delisting modification was approved by Ecology in 2005.

The process for delisting is a two-step process. First, EPA must grant the petition through a formal Federal Register rulemaking. Then, Ecology considers both the information required by EPA and additional information that addresses separate state criteria to determine granting or not granting the petition for the state. EPA is currently publishing the Notice to grant the petition. Ecology has reviewed all information submitted as part of the petition and is tentatively approving the petition and making it available for public comment.

### **Background**

### Hanford's 200 Area Effluent Treatment Facility

The 200 Area ETF is a radioactive aqueous wastewater treatment system located in the 200 East Area of the Hanford Site that provides treatment for a variety of aqueous mixed waste. This aqueous waste includes process condensate from the 242-A Evaporator, Hanford landfill leachates, and other aqueous waste generated from onsite remediation and waste management activities, potentially carrying a range of listed and characteristic dangerous waste numbers. The 200 Area ETF consists of a primary and a secondary treatment train. The primary train includes treatment processes to treat both organic and inorganic waste constituents, including ultraviolet oxidation (UV/OX), reverse osmosis, ion exchange, pH adjustment and filtration. The secondary treatment train manages backwash from the primary treatment train filters, ion exchange regeneration, and the stream from the reverse osmosis system that is retained by the reverse osmosis membrane, also known as retentate. Construction of the 200 Area ETF began in 1992 with waste management operations beginning in November of 1995.

Treated effluent from the 200 Area ETF is discharged to the State Approved Land Disposal Site, or SALDS, located north of the 200 West Area of the Hanford Site. This disposal unit allows tritium remaining in the treated effluent to naturally decay in the subsurface – it is not authorized to accept dangerous waste. To this end, the EPA issued an exclusion from the list of hazardous wastes to Energy in 1995. See 60 Federal Register (FR) 6054, February 1, 1995. This exclusion was amended by the EPA in 2005. See 70 FR 44496, August 3, 2005.

### Hanford's Waste Treatment and Immobilization Plant

The Waste Treatment and Immobilization Plant (WTP), is intended to process and stabilize much of the 56 million gallons of radioactive and chemical waste currently stored at the Hanford Site. As originally envisioned, the WTP would treat high-level and low-activity radioactive waste simultaneously. To begin treating waste as soon as practicable, Energy developed an approach to treat low-activity waste prior to the start-up of the WTP pretreatment and the high-level waste facilities. This approach is called direct-feed low-activity waste, or DFLAW, and is focused on sending low-activity waste from the tank farms directly to the WTP Low-Activity Waste (LAW) Facility. A new Effluent Management Facility (EMF) has been constructed at the WTP to manage effluents generated from the WTP LAW Facility during

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DFLAW. The EMF is needed to evaporate the liquid secondary waste generated by the off-gas treatment system associated with the two WTP LAW Facility vitrification melters. Evaporator process condensate from the EMF, combined with WTP LAW Facility caustic scrubber effluents, will receive treatment at the 200 Area ETF, with the resulting treated effluent disposed of at the SALDS. The waste stream transferred from WTP to the 200 Area ETF is referred to as the WTP DFLAW effluent waste stream.

### Changes to 200 Area Effluent Treatment Facility Capability

Through the design and permitting of the WTP complex, Energy identified several additional constituents it expected to be present in WTP DFLAW effluent waste stream which are not typically found in wastes managed by the 200 Area ETF, or are present at levels above the current capabilities of the 200 Area ETF. Most of these additional constituents are within the existing treatment capabilities of the 200 Area ETF, and do not require special consideration. One constituent, acetonitrile, which is formed in the WTP LAW Facility vitrification melters, is predicted to be present at levels in excess of the current capability of the 200 Area ETF, as reflected in the current organic treatability envelope documented in Table C–2 of the delisting petition dated November 29, 2001. Within the 200 Area ETF, the UV/OX system treats organic compounds, including but not limited to acetonitrile. However, acetonitrile is not easily degraded through UV/OX. Table C-2 in the November 29, 2001, petition shows an electrical energy per order (EE/O) of magnitude destruction of 50. EE/O reflects the relative difficulty for destruction of the organic constituent in the UV/OX unit. Constituents in Table C-2 with an EE/O of 40 or higher are considered hard to treat organics.

After examining various options for addressing this issue, Energy determined that the addition of supplemental organic treatment in the form of a steam stripper to the 200-ETF to separate acetonitrile from treated effluents would be the preferred approach to ensuring additional constituents associated with the WTP DFLAW effluent waste stream can be effectively managed at the 200 Area ETF. To accommodate the addition of the proposed steam stripper unit to the 200 Area ETF, two technical amendments are necessary to the current delisting. First, the list of unit operations in Condition (1)(d)(iv) of the current delisting must be amended to include steam stripping. Second, a new condition is necessary to establish a mechanism whereby Energy can operate the 200 Area ETF outside of the existing treatability envelope to gather demonstration test data to increase the treatability envelope concentration for acetonitrile to accommodate the predicted level in the WTP DFLAW effluent waste stream.

### **Delisting Regulations**

Ecology regulates the management of dangerous waste in Washington State in accordance with the Washington State Hazardous Waste Management Act, Chapter 70.105 Revised Code of Washington (RCW) and the Dangerous Waste Regulations, Chapter 173-303 WAC.

EPA also regulates facilities that manage hazardous waste in accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA) and the regulations in Title 40 of the Code of Federal Regulations (CFR). EPA has authorized Ecology to implement these federal regulations in Washington.

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Both the federal hazardous waste regulations and state dangerous waste regulations include provisions that allow a facility to petition for exclusion ("delisting") from the list of federal hazardous wastes. The state provisions for delisting petitions are found in WAC 173-303-910(1) and (3). The federal provisions for delisting petitions are found in 40 CFR 260.20 and 260.22.

While Ecology has received final authorization to implement most of its dangerous waste program regulations in lieu of the federal program, including the listing and identification of U019 and U220 wastes, it has not been authorized to implement its delisting regulations program in lieu of the federal program. As a result, Energy must seek approval of their delisting petition from both Washington State and EPA.

### **State-Only Criteria**

The Washington State Dangerous Waste Regulations are more protective in some ways than the federal hazardous waste regulations. One area where the state regulations are more protective is determining what materials are regulated as dangerous waste. Washington has criteria for toxicity and persistence that the EPA does not. Materials not regulated as hazardous waste by the federal regulations must also be checked during the delisting evaluation process against the state criteria in WAC 173-303-100.

### **Proposed Decision**

Ecology has reviewed all information submitted as part of the delisting petition and has made a tentative decision to grant this petition for modification.

Based on the review of the <u>petition submitted by Energy</u>, there do not appear to be any significant legal, environmental, scientific, or economic issues. The facility has demonstrated compliance with applicable regulatory criteria for this action.

Ecology is proposing to grant the petition, pending approval by EPA after publication in the Federal Register and any subsequent revisions resulting from public comment. This approval is conditional. Energy must meet delisting levels, conduct waste verification testing, and meet data submittal requirements and other conditions, as outlined in EPA's notice of proposed delisting. EPA's notice can be found on the Federal Register.

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From: McFadden, Daina (ECY)

To: <u>HANFORD-INFO@LISTSERV.ECOLOGY.WA.GOV</u>

**Subject:** 30-day advance notice of the 200 Area ETF delisting modification

**Date:** Friday, March 5, 2021 10:30:26 AM

# Modification of the 200-Area Effluent Treatment Facility (ETF) Delisting 30-Day Advance Notice

The Washington State Department of Ecology (Ecology) and the Environmental Protection Agency Region 10 (EPA) are providing notification of a 30-day public comment period starting early to mid-April 2021. This comment period will address targeted technical changes to the existing delisting to support startup of the Direct Feed low Activity Waste (DFLAW) configuration of the Waste Treatment Plant (WTP). The Hanford Site is located in southeastern Washington.

### What changes are being proposed?

The proposed changes relate to addition of a new waste treatment process (steam stripping) to the 200-Area ETF to accommodate the expected level of certain constituents in liquid effluent from the WTP Effluent Management System.

EPA and Ecology will be making separate but coordinated decisions regarding this action under their respective regulatory authorities.

Ecology anticipates a separate public notice and comment period at a later date related to permitting of the steam stripper unit.

### Public hearing

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden

Hanford@ecy.wa.gov

509-372-7950



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From: McFadden, Daina (ECY)

To: HANFORD-INFO@LISTSERV.ECOLOGY.WA.GOV

Subject: New 30-day comment period starts today

Date: Monday, June 7, 2021 3:31:01 PM

# Modification of the 200-Area Effluent Treatment Facility (ETF) Delisting public comment period notification

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency Region 10 (EPA) are providing notification of a 30-day public comment period starting June 7 to July 7, 2021. This comment period will address targeted technical changes to the existing delisting to support startup of the Direct-Feed Low Activity Waste (DFLAW) configuration of the Waste Treatment Plant (WTP). The Hanford Site is located in southeastern Washington.

### What changes are being proposed?

The proposed changes relate to addition of a new waste treatment process (steam stripping) to the 200-Area ETF to accommodate the expected level of certain constituents in liquid effluent from the WTP Effluent Management System.

EPA and Ecology will be making separate but coordinated decisions regarding this action under their respective regulatory authorities. EPA's notice can be found on the <u>Federal Register</u>.

Ecology anticipates a separate public notice and comment period at a later date related to permitting of the steam stripper unit.

### How to comment

Ecology invites you to review and comment on this proposed 200 Area ETF delisting modification. The proposed modification is online at the Nuclear Waste Program's <u>public comment page</u>. Copies of the proposed modification are located on the <u>Administrative Record</u>.

Please submit comments by **July 7, 2021.** Electronic submission (preferred):

### Modification of the 200-Area ETF Delisting

Mail or hand-deliver to:

Daina McFadden

3100 Port of Benton Blvd Richland WA 99354 Fax 509-372-7971

### Public hearing

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden

Hanford@ecy.wa.gov

509-372-7950



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Modification of the 200-Area Effluent Treatment Facility (ETF) Delisting

# Modification of the 200-Area Effluent Treatment Facility (ETF) Delisting

June 7, 2021 - July 7, 2021

Our agency and the U.S. Environmental Protection Agency Region 10 (EPA) are holding a 30day public comment period addressing targeted technical changes to the existing delisting to support startup of the Direct-Feed Low Activity Waste (DFLAW) configuration of the Waste Treatment Plant (WTP). The Hanford Site is located in Southeastern Washington.

### Proposed changes

The proposed changes relate to addition of a new waste treatment process (steam stripping) to the 200-Area ETF to accommodate the expected level of certain constituents in liquid effluent from the WTP Effluent Management System.

EPA and our agency will be making separate but coordinated decisions regarding this action under their respective regulatory authorities. EPA's notice can be found on the Federal Register ©.



Hanford's Effluent Treatment Facility (ETF) is shown in the bottom part of this image, with the Liquid Effluent Retention Facility in the top portion. (Photo courtesy USDOE)

Our agency anticipates a separate public notice and comment period at a later date related to permitting of the steam stripper unit.

### Review and comment

Copies of the application for the proposed permit and supporting documentation are available below, or at the <u>Hanford Administrative Record</u>, 

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Please submit comments by July 7, 2021, electronically @\_@(preferred), or deliver to:

Daina McFadden 3100 Port of Benton Blvd Richland, WA, 99354 Fax 509-372-7971

A public hearing is not scheduled, but if there's enough interest, we will consider holding one. To request a hearing, contact Daina McFadden by gmall or call 509-372-7950.

#### Documents

### Fact sheet@

21-ECD-000789 Letter ₾

21-ECD-000789 - ATTACHMENT 1 €

21-ECD-000789 - ATTACHMENT 2 @

21-ECD-000789 - ATTACHMENT 3 €

21-ECD-000789 - ATTACHMENT 4@



### Modification of the 200-Area Effluent Treatment Facility (ETF) Delisting

### Hanford Site

June 7, 2021 - July 7, 2021, 11:59 p.m.

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#### Review and comment

The modification proposal and supporting documents are on our Hanford public comment periods page.

#### Proposed changes

The proposed changes relate to addition of a new waste treatment process (steam stripping) to the 200-Area ETF to accommodate the expected level of certain constituents in liquid effluent from the WTP Effluent Management System.

EPA and our agency will be making separate but coordinated decisions regarding this action under their respective regulatory authorities. EPA's notice can be found on the <u>Federal Register</u>re.

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### ETF background

The Liquid Effluent Retention Facility and Effluent Treatment Facility, along with the Treated Effluent Disposal Facility, are all part of the Liquid Waste Processing Facility (LWPF). LWPF began construction in 1992 and became operational in 1995. The focus of the three facilities is to process a variety of Hanford Site waste containing high levels of chemical contamination and low levels of radioactive contamination.

ETF processes liquid waste, removing chemical and radioactive contaminants. LERF comprises of a series of retention basins made to store liquid waste until it can be processed at ETF.

For more information see the <u>Nuclear Waste Program public</u> comment page.



- Use our <u>online comment form</u> ⊕
- Submit your comment by email: Hanford@ecy.wa.gov



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